CLAIM AMENDMENTS

1-22 (canceled)

23. (new) A globe comprising:

a globe support,

an electromagnet attached to the globe support,

a globe sphere,

a permanent magnet mounted on the globe sphere and interacting with the electromagnet, whereby the globe sphere is suspended magnetically from the globe support without contacting the globe support,

a magnetic field sensor that is stationary relative to the globe support, and

a microcontroller for controlling the position of the globe sphere by controlling supply of energizing current to the electromagnet,

and wherein the microcontroller has an input connected to the magnetic field sensor,

the microcontroller measures change in average current supplied to the electromagnet,

and the microcontroller controls supply of energizing current to the electromagnet in response to both an output signal of the magnetic field sensor and the measured change in average current supplied to the electromagnet.

24. (new) A globe according to claim 23, wherein the magnetic field sensor is a Hall effect sensor attached to the globe support and the globe further comprises an analog-to-digital converter for digitizing the output signal of the Hall effect sensor and providing the digital output signal to the input of the microcontroller.

25. (new) A globe according to claim 23, wherein the microcontroller generates an output signal for controlling energization of the electromagnet and the globe comprises a

switch responsive to the output signal for controlling current flow through the electromagnet.

26. (new) A globe according to claim 25, wherein the microcontroller measures the average current by measuring the duty cycle of the electromagnet over a predetermined interval and compares the measured value with a reference value and if the measured value exceeds the reference value and the magnetic field sensor indicates that the globe sphere is too far from the globe support relative to a desired position of the globe sphere, the microcontroller increases the duty cycle of the electromagnet whereas if the measured value of the duty cycle is less than the reference value and the output signal of the magnetic field sensor indicates that the globe sphere is too close to the globe support relative to the desired position of the globe sphere, the microcontroller reduces the duty cycle of the electromagnet.

27. (new) A globe according to claim 23, wherein the microcontroller includes a means for measuring the average current by measuring the duty cycle of the electromagnet over a time period of at least 10 ms, comparing the measured value with a reference value, and changing the duty cycle in a manner to become more nearly equal to the reference value.

28. (new) A globe according to claim 23, wherein the microcontroller measures change in average current supplied to the electromagnet by measuring a first value of duty cycle of the electromagnet over a first interval, measuring a second value of duty cycle over a second interval, and calculating the difference between the first and second values.

29. (new) A method of controlling the position of a globe sphere that is suspended magnetically from a globe support by use of a permanent magnet mounted on the globe sphere and interacting

with an electromagnet attached to the globe support, the method comprising:

employing a magnetic field sensor that is stationary relative to the support to generate an output signal dependent on height of the globe sphere relative to the globe support,

supplying energizing current to the electromagnet, whereby the permanent magnet is attracted towards the electromagnet,

measuring change in average current supplied to the electromagnet, and

controlling the current supplied to the electromagnet in response to both the output signal of the magnetic field sensor and the measured change in average current.

30. (new) A method according to claim 29, comprising measuring the change in average current supplied to the electromagnet by measuring a first value of duty cycle of the electromagnet over a first inverval, measuring a second value of duty cycle over a second interval, and calculating the different between the first and second values.

31. (new) A method according to claim 29, comprising measuring the average current by measuring the duty cycle of the electromagnet over a time period of at least 10 ms, comparing the measured value with a reference value, and changing the duty cycle in a manner to become more nearly equal to the reference value.

32. (new) A method according to claim 29, comprising measuring the average current by measuring the duty cycle of the electromagnet over a predetermined interval, comparing the measured value with a reference value and if the measured value exceeds the reference value and the magnetic field sensor indicates that the globe sphere is too far from the globe support relative to a desired position of the globe sphere, increasing the duty cycle of the electromagnet, whereas if the measured

value of the duty cycle is less than the reference value and the output signal of the magnetic field sensor indicates that the globe sphere is too close to the globe support relative to the desired position of the globe sphere, reducing the duty cycle of the electromagnet.

33. (new) A method according to claim 29, comprising employing a switch to control supply of energizing current to the electromagnet and utilizing the duty cycle of the electromagnet as a measure of average current.

34. (new) A method according to claim 29, comprising comparing the duty cycle with a reference value and controlling supply of energizing current to the electromagnet in a manner such as to reduce difference between the duty cycle and the reference value.

35. (new) A method according to claim 29, comprising deenergizing the electromagnet in the event that the output signal of the magnetic field sensor falls below a first threshold value.

36. (new) A method according to claim 29, comprising energizing the electromagnet in the event that the output signal of the magnetic field sensor exceeds a second threshold value.